

COST *and* MANAGEMENT

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COST AND MANAGEMENT

DIRECTORS' MEETING—CHANGE IN FEES AND MEMBERSHIP CLASSIFICATION

A MEETING of directors of the Society was held in Toronto on November 17th, at which several important changes in our by-laws, in respect to classes of membership and fees, were decided upon, to take effect from March 1 next, when our new financial year begins.

The Society's financial affairs for the current year ending February, 1930, are in good shape, and should result in a satisfactory surplus of revenue over expenses. The five old Chapters are all engaged in active programs, and Vancouver is an important addition to our organization. We should close the year with about 400 members.

It was decided to place all our members on the same footing, in respect of privileges and fees. That is, the distinction between the present regular and the present junior memberships is abolished as from March 1 next. The fee is to be \$15 a year. This fee is slightly less than the average now received, on account of the predominant number in the regular class paying \$20 a year, but with a total of 400 members on our list, and every prospect of further increase, our finances should continue to be satisfactory.

Before making this change, the facts were placed before every Dominion and Chapter director. Montreal and Toronto were about equally divided in opinion, between some plan like the present including a junior or associate membership, and the new proposal, but Hamilton, Central Ontario, Winnipeg and Vancouver were practically unanimous in favor of the latter. The directors considered that this was as near to complete agreement as we were likely to get on the matter, and the change was adopted unanimously at the meeting.

In dropping the "junior" membership classification, the directors recognized that our regular meetings must be arranged so as to interest men of some experience. Elementary instruction in cost accounting and associated subjects is being provided through other channels in Montreal and Toronto, and similar arrangements may be made in other cities. The Society is ready to co-operate in work of this kind.

A further amendment in the by-laws, to take effect March next, provides that applications for membership must be approved by the directors of the nearest Chapter.

Regulations for the holding of examinations were approved. These are printed on the following pages. It will be noted that application to try the examination in May, 1931, may be made up to January 31, and must be accompanied by the proper fee.

COST ACCOUNTANTS AND INDUSTRIAL ENGINEERS

**THE CANADIAN SOCIETY OF
COST ACCOUNTANTS & INDUSTRIAL ENGINEERS**

EXAMINATIONS

(Regulations adopted November 17, 1930)

A.—General

1. The Society will grant a Certificate of Efficiency in Cost Accounting and Business Organization and Administration to each person passing its two examinations and submitting a satisfactory thesis.
2. The examinations will be held on the first consecutive Monday and Tuesday in May of each year, at such points as may be decided by the Society. The Society will endeavour to hold an examination at any place where there are four or more candidates.
3. Application to try an examination in the following May, may be made up to January 31 each year, on the form provided by the Society.
4. Candidates for the First Examination must have attained the age of 21 years, and must have at least two years' experience in accounting or cost accounting.
5. Candidates for the Second Examination must have passed the First Examination and must have at least four years' experience in accounting or cost accounting, and must be members of the Society.
6. Candidates are at liberty to answer questions in either English or French. Good composition and spelling are general requirements.
7. The pass mark for each subject shall be 60 per cent., and the honor mark 80 per cent.
8. Candidates for the First Examination may obtain exemption from subjects a, b or c of the First Examination, by applying for such exemption and furnishing satisfactory proof: (a) That they have passed the Intermediate Examination of any of the following bodies: Any Society or Institute belonging to the Dominion Association of Chartered Accountants; Corporation of Public Accountants of the Province of Quebec; Institute of Accountants and Auditors of the Province of Quebec; Association of Accountants and Auditors of Ontario; General Accountants' Association; or (b) That they have passed equivalent examinations, of which the Society approves, in any of these subjects.
9. A candidate for the First Examination must pass all subjects of that examination within a period not exceeding three years. A candidate for the Second Examination must pass both subjects of that examination at the one time.
10. The fees for examination are: First Examination, one or two subjects \$5, complete \$10; Second Examination complete \$20. The fee must accompany the application, and will be returned if the application is refused, or if an examination is not held in a place which in the opinion of the Society is sufficiently convenient for the candidate.

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11. Candidates will be supplied with paper suitable for the examinations.

12. A candidate found guilty of any dishonest practice in an examination will be liable to permanent disqualification for examination standing and for membership in the Society.

13. These rules are subject to amendment at any time by the directors of the Society.

14. The following text-books are suggested for the assistance of students: Accounting Principles and Practice, by Smails and Walker; Digest of Canadian Mercantile Law, by Anger; Cost Accounting, by Nicholson and Rohrbach; Manual of Cost Accounts, by Lunt; Industrial Accounting, by Sanders; Principles of Business Organization, by Kimball; Administration of Industrial Enterprises, by Jones; articles published in Cost and Management.

B.—First Examination

15. The subjects for the First Examination shall be as follows:

a. Bookkeeping, including double entry, control accounts, columnar journals, closing of books, etc., also simple knowledge of bills of lading, cheques, etc.

b. Accounting, including main principles, capital and revenue, expenditure and receipts, apportionment of expense over departments, and preparation of statements of manufacturing, trading, profit and loss, net income, surplus or appropriation, balance sheets, etc.

c. Law, including main principles of bankruptcy, bills of exchange, companies, contracts, partnership, principal and agent, sale of goods.

d. Cost Accounting, including main principles and records, factory ledgers, distribution of factory overhead, wages, receipt and issue of materials, etc.

16. The time allowed for examination shall be three hours for each of the above subjects.

C.—Second Examination

17. The subjects for the Second Examination shall be as follows:

a. Cost Accounting, advanced.

b. Business Organization and Administration.

18. The time allowed for examination shall be four hours for Cost Accounting and three hours for Business Organization and Administration.

19. Each candidate will be required to mail to the Society's office, a thesis describing an entire costing system, including specimens of the principal forms used. This thesis shall be prepared privately by the candidate, and must be entirely his own composition. Two copies must be forwarded to the Society, one entirely in the handwriting of the candidate, and one typewritten. The thesis should not exceed 10,000 words in length.

Adjusting the Burden to Meet Varying Conditions

By RALPH E. CASE,

*Partner of Firm of Stevenson, Harrison & Jordan,
Management Engineers*

(Before Toronto Chapter, November 12, 1930.)

STANDARD Costs have become so generally accepted as a part of modern business procedure and policy that it seems reasonable to assume that their adoption is the first step to budget control. This is particularly emphasized by the number of magazine articles and the professional papers presented to accounting and business societies, particularly the national association of cost accountants and also your association.

No doubt this interest is best explained by the fact that a standard cost provides not only the means to control cost, but actually lowers costs. Properly installed and operated, however, standard costs do more than reduce costs. They provide the means to furnish a guide to obtain desired profits, they give the basis for establishing proper selling prices, they reveal not only the existence but the cause of variations, of higher or lower costs, and tie into other management methods, particularly wage incentive plans both for direct workers and key men.

The variations from the standards or budgets become the subjects of executive analysis. These variations divide themselves naturally into two general classes, controllable and uncontrollable.

Uncontrollable Variations

Controllable variations are largely a matter for administrative supervision, but the uncontrollable variations are due to different speeds of operation—in other words volume variations.

It is therefore quite important to provide for the adjustment of a standard burden for various speeds of operation.

The need has been recognized, and I find in "Cost Accounting," by Jordan & Harris, the nearest approach in the suggestion to use varying burden for varying loads. This was for use in budgeting only, and was not intended as a basis for standard costs. Such budgets, however, would accurately spot the shop responsibility if a sufficient number of rates were determined but would be rather cumbersome to use and provide no tie to the routine accounting procedure. Mr. G. Charter Harrison (exponent of Standard Costs) has, from the very first, separated "Idle Time", which is his name for Volume Variance from the total variance, but his method only permitted the separation as regards fixed charges and did not apply to those expenses which are neither fixed nor are they strictly variable with production. The most complete separation for budget purposes only was accomplished by **Mr. A. B. Rynders, Works Manager of the Westinghouse plant at Springfield, who succeeded in establishing curves for certain items of the works budget. These curves showed the allowed expense at any activity expressed in terms of dollars of productive labor.

*Cost Accounting—Principles and Practices, pp. 332.

**Manufacturing Industries, July, 1928.

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The natural question was, why can we not use these curves as a basis of standard costs? But standard costs could not be costs varying with activity. The standard cost of any unit of expense must be a certain amount per unit of production. Otherwise the product would not have a standard cost when these elements were applied, but, instead, a cost that would vary with activity. This would, of course, vitiate practically all of the advantages of standard costs. Standard costs must be truly standard, but the cost procedure must separate the Controllable Variance from the Volume Variance when the results are to be effectively used for operating control.

Certain expenses vary directly with production, and must therefore coincide with the cost line. In such cases there is no such thing as Volume Variance.

Certain other expenses are fixed and have no relation whatever to activity. When plotted, these expenses become horizontal straight lines through the normal point, and there is no Controllable Variance.

These two classes of expense, therefore, do not need curves, since in the one case the total variance is controllable and in the other case the total variance is volume.

Unfortunately at this point I must get a little technical in order to prove the soundness of a method which in practice is extremely simple and devoid of any tinge of technicality. However, to demonstrate the method it is necessary to plot a curve for allowed expense, and to plot another line for the standard cost.

A Budget Curve

Let us then construct one of these budget curves so that we may carry an example through to its logical conclusions. Let us take the item of Foremen and Assistant Foremen in a department employing 216 operators on repetitive machine work.

Taking into consideration the layout of the department, the natural grouping of certain types of operations and the number of direct workers necessary in each group, it was determined that under normal operating conditions the department should operate efficiently with one foreman and four assistant foremen. When the activity dropped to 75% of normal, one of the assistants could be transferred to other work. At 50% activity another assistant could be transferred, etc. The normal organization could carry on above normal until 150% activity was reached, when it would be necessary to put on a night shift in one section, making another assistant foreman essential. Specifically then we would have the following budgets for this item:

Activity	25%	50%	75%	100%	150%
Foreman	\$400	\$400	\$400	\$400	\$400
Asst. Foreman No. 1.....	250	250	250	250	250
“ “ No. 2.....		250	250	250	250
“ “ No. 3.....			225	225	225
“ “ No. 4.....				175	175
“ “ No. 5.....					200
	\$650	\$900	\$1,125	\$1,300	\$1,500

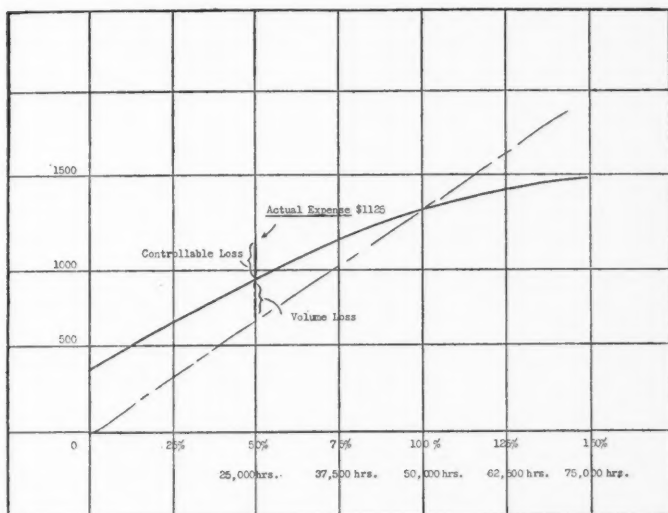
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Plotting these points we obtain the budget curve shown in Figure 1. This represents for any activity of the department the amount of expense that is allowed for Foremen and Assistant Foremen.

The Standard Cost Line

Now, let us construct the Standard Cost line. Under normal conditions we have an expense for Foremen of \$1,300.00, and we employ 216 operators. If we take a man hour as our measure, we have in a 48 hour week 10,368 man hours and our normal expense for Foremen is three cents per man hour. This is the amount of money that will be absorbed in cost for this item of expense, and it is obvious that if this expense is \$1,300.00 at normal it must be one half of \$1,300.00 or \$650.00 at half load (normal is used as 100% on the chart, but this does not mean full capacity but probably only about 80% of full capacity) and so on. The result, if plotted on the same scale as the budget curve, is a straight line passing through zero and the normal expense point. This is also plotted on the chart shown in Figure 1.

Figure 1



The cost line and the budget curve only coincide at normal, and at all other points they diverge, and the meaning of this divergence is volume. Take 50% activity for example. We absorb \$650.00 in the standard cost of our product at this point. But we have decided by analysis from all angles that a Foreman and two Assistant Foremen are necessary at a cost of \$900.00. In other words because we have a volume of business that is only 50% of normal we must spend \$250.00 more in proportion than we would have if we had operated at normal volume. This extra cost cannot be laid at the feet of the plant executives. They have done all that could be expected of them

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since they have met a carefully set budget. The charge is purely against the volume of work, whether this be due to business conditions, poor salesmanship, or wrong policies. This variance, due to volume of work, is represented by the distance between the budget curve and the cost line on our chart.

Now suppose that at 50% operation there is an actual expense of \$1,125.00. The standard cost at 50% is \$650.00. The budgeted cost at 50% is \$900.00.

Total Variance is..... \$1,125.00 — \$650.00 = \$475.00 Loss

Volume Variance is..... 900.00 — 650.00 = 250.00 Loss

Controllable Variance.. -1,125.00 — 900.00 = 225.00 Loss

The foregoing indicates that there was a total loss of \$475.00 where the normal loss, due to lack of volume, should have only been \$250.00, but on account of the fact that the assistant foreman was not transferred to other work, an additional loss of \$225.00 was incurred during the month, and was a controllable item. Had the situation been reversed, and the plant working on a 75% volume, and had the actual expenses been \$1,025.00 (brought about by assigning one of the production workers to part time supervision), we could show this in our accounting reports or cost analysis as follows:

Total Variance \$1,025.00 — \$975.00 = \$ 50.00 Loss

Volume Variance 1,125.00 — 975.00 = 150.00 Loss

Controllable 1,025.00 — 1,125.00 = 100.00 Gain*
(Allowed)

*Thus showing good foremanship, in reducing an expected loss due to lower volume by \$100.00, although we would carry our figures through at Standard (\$975.00) and deal with the two variances in accordance with good accounting practice.

A Simple Analysis

In actual practice the entire analysis is reduced to a very simple sheet that requires a minimum of clerical effort to compile. Such a sheet is shown in Fig. 2, and is in reality a worknig sheet for the benefit of the foreman, but in actual accounting practice totals only will be used in bringing the figures into the general books.

By using this method of determining the amount of variance due to volume and the amount of variance which is controllable, we have specific figures which can be used in accounting. There are many different opinions as to just how variances should be handled on a company's books, but it would appear that volume variance is purely an item which should adjust itself, by reason of the fact that the whole budget has been determined on the basis of an average or normal operation, which should be averaged throughout the year, and therefore this variance should clear itself during the year. This might therefore be carried in a suspense account, and any balance remaining charged to profit and loss at the end of the year. This would be the actual cost or penalty of insufficient volume of sales to warrant keeping production up to normal.

Controllable variations are purely matters of incompetent operating management, and indicate the exact amount of money which has been lost on the production during the particular period. This should

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Fig. 2

DEPARTMENTAL SCHEDULE

	1	2	3	4	5	6
	Estimated Normal Budget	Std. Cost of Month's Production	Std. Shop Allowance	Actual Cost	Total Variance	Volume Variance
Foremen and Asst. ....c	\$1,300.00	\$1,157.00	\$1,220.00	\$1,125.00	\$32.00 cr	\$63.00
Rate Setters .....c	225.00	200.25	225.00	206.00	5.75	24.75
Inspectors .....c	2,800.00	2,492.00	2,580.00	2,600.00	108.00	88.00
Prod. Clerks .....c	850.00	756.50	827.00	810.00	53.50	70.50
Matl. Handlers .....c	340.00	302.60	317.00	414.00	111.40	14.40
Misc. Wages .....v	20.00	17.80	17.80	8.00	9.80 cr	.....
Shop Supplies .....v	235.00	209.15	209.15	230.00	20.85	.....
Defective Work .....v	680.00	605.20	605.20	491.00	114.20 cr	.....
Stores Attendants .....c	560.00	498.40	520.00	510.00	11.60	21.60
Rearrangement .....v	90.00	80.10	80.10	14.50	65.60 cr	.....
Instructors and Learners .....v	200.00	178.00	178.00	193.00	15.00	.....
Testing .....c	940.00	836.60	815.00	816.00	20.60 cr	21.60 cr
Unapplied Labor and Material .....v	1,850.00	1,646.50	1,646.50	1,702.00	55.50	.....
Depreciation .....f	1,400.00	1,246.00	1,400.00	1,400.00	154.00	.....
Machine Repairs .....v	550.00	489.50	489.50	297.00	192.50 cr	.....
Tool Maintenance .....v	435.00	431.65	431.65	506.00	74.35	.....
Repairs to Testing & Handling Eq....v	220.00	195.80	195.80	178.00	17.80 cr	.....
Furn. and Fix. Rep. and Ren.....v	65.00	57.85	57.85	12.50	45.35 cr	.....
	\$12,810.00	\$11,400.90	\$11,815.55	\$11,513.00	\$112.10	\$414.65
						\$302.55 cr

c—controllable. v—varies with production. f—fixed.

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be charged to profit and loss monthly, in order that the inventories should not become inflated through the application of actual cost to the production. This will prevent inventories at too high or too low a cost, and maintain the principle of the standard manufacturing cost.

Basis for Bonus

And now we are on perfectly safe ground for bonus purposes. We can show the supervisor keyman's responsibility for every item of controllable variance and at the same time we have safeguarded the company against unearned bonuses which might accrue due to a rise in activity beyond the normal point.

If a budget is good enough to serve as a basis for standard costs, why isn't the same budget good enough to serve as a basis for the foreman's bonus? Why carry on a double set of accounts when one set should answer the purposes of both costs and bonus? The answer to these questions is that there are many items which must be included in costs which are beyond the control of the foreman and therefore should not be the basis of a bonus payment or a bonus penalty. But the fact remains that a definite tie of the bonus budgets to the general books is highly desirable. In the eyes of a Controller such a tie, that will show not merely where but why a company's funds are drawn upon for bonus, is an absolute necessity.

The essential difference between cost budgets and bonus budgets is that the costs must contain all elements of expense of whatever nature, whereas the bonus is based only upon those expenses which are subject to the control of the bonus participants. Such a differentiation is a simple matter, but when it comes to measuring the degree to which the control has been exerted, we are confronted with a problem which has not been solved in a practical way until quite recently.

The mere separation of variable items from fixed items as practiced by hundreds of accountants, is not sufficient for bonus or even for good executive control. Let me illustrate: A department has three inspectors at normal load. Standard costs will absorb $1\frac{1}{2}$ inspectors at 50% activity, but what are the real necessities at $\frac{1}{2}$ load. Probably and almost certainly it would not be $1\frac{1}{2}$ men. The layout of the plant and the necessary flow of the work might make 2 inspectors necessary at half speed operation. Control must, therefore, be based upon whether the force was reduced from 3 men to 2 men and not upon a reduction to $1\frac{1}{2}$ men as the costs would indicate. Neither should bonus be calculated on the basis of $1\frac{1}{2}$ inspectors at 50% activity but upon the 2 men that are necessary.

Key Man Bonus Plan

The requirements of a Key Man Bonus plan, wherein a company undertakes to share the savings, beyond an agreed upon budget, with the foreman and other responsible key men, is much more exacting than the requirements of accounting alone. From an accounting standpoint, the requirement has been to state accurately a company's position, but this has not necessarily involved the statement of specific individual responsibilities along with the statement of company position. Thus for the purposes of accounting we have always been able to *do many things* which are no longer permissible when we must be in a position to prove a foreman's responsibility for an expense on the one hand and on the other hand to make sure that an unearned

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bonus is not paid. It is no longer possible to tax a wide awake foreman with a prorated item of stationery or any other indirect spread. You have to prove the charge by specific items to him and purely general amounts have to be carried by some other person who is in a position to control such expenses. Neither can a key man be penalized because, in a period of depression, a department did not operate with one half of a foreman.

Here then is the crux of the problem. Our accounting must separate the things for which the works executives are responsible from the things for which they are not responsible. This separation must be accurate and specific at all activities—not merely at normal. If we are to operate our costs with the punch that spells success; if we are to set up a Key Man Bonus that will operate as well in good times as in bad, then we must separate the Variance into two parts—the Controllable Variance and the Variance which depends upon activity of the plant, namely, Volume Variance.

Some Pioneers

It required real pioneering to find a logical and practical way to make this separation. This pioneering was done more than a year ago in one of the plants, East Springfield plant of the Westinghouse Electric & Manufacturing Company, starting upon the basis of curves developed by Mr. A. B. Rynders, Westinghouse Manager, for the determination of budget allowances at various activities. Since that time the plan has weathered a year of unprecedented stress with violent changes in activity. So successfully has it operated that a discussion of the basic ideas and something of their application may render a service to those who have not had other opportunity to hear of this latest development in Standard Cost Accounting.

Our interest in Volume Variance has to do with market research on sales effectiveness, and it is therefore important to separate this factor from the Controllable variance which is a measure of shop effectiveness.

Finally, all this may seem unduly complicated and difficult to operate. Let me point out that this method was first installed over a year ago in a plant that had a standard cost system in operation. This was a good system of the generally recognized type. It was overhauled and improved, and the bonus work added, and has since operated at a saving in clerical expense of cost keeping of \$14,000.00 per year over the other plan. Furthermore, the annual inventory showed less difference than ever before and their inventories have not been bad in the past. Certainly it is safe to say that this method produces results, gives us a cost control with teeth in it, and, once installed, is simple and inexpensive to operate.

The mill foreman came upon two darkies walking slowly up the road, single file.

"Say, you, why ain't you worthless niggers working?"

"We'se working, boss, sho' nuff. We'se carrying this plank up to the mill."

"What plank? I don't see any plank."

"Well, fo' de lawd's sake, Abe! Ef we ain't gone an' forgot de plank!"

The Relation of Cost Accounting to Business Management

By R. B. W. PIRIE, C.A., Vancouver.

(Before Vancouver Chapter, October 14, 1930.)

LET me express my appreciation of the honour you have conferred upon me in inviting me to address you at this, your initial meeting, and to take the opportunity, before proceeding with my subject, to congratulate you on the formation and organization of this Chapter, and in bringing together cost accountants and others interested in the aims and objects of your Society. I confess that more than two years ago I made a firm resolve that for my own peace and in the interests of a long-suffering humanity I had definitely finished with public speaking, and should no more stray from the calm obscurity of private life. When I note, from reading your transactions, the formidable list of men of distinction and authority who have addressed your body at various times during your ten years' existence, I am at a loss to understand how I find myself to-night in the position I occupy. I must have been hypnotized, and my proverbial Scotch caution lulled to sleep, by the persuasive eloquence of your energetic chairman of the programme committee, Mr. Harvey, ably aided and abetted by your chairman, Mr. Campbell, who, I consider, are solely accountable for whatever experiences are in store for you to-night. And now, to my subject.

In dealing with the needs of every-day life the expressions in current use, taken as a whole, quite adequately and satisfactorily meet all our requirements. In the clearer thinking demanded of the scientist, the philosopher and the metaphysician, it is necessary to refine down to somewhat narrow compass and to ascribe very definite meanings to the terms employed, in short, to have accurate definitions. Otherwise, the speaker may have one thing in mind, while his hearers may attach to his utterances conceptions of a character not intended or contemplated, resulting in a mutual confusion of ideas. Accounting is both a science and an art, and, as I shall endeavour to show later, there is no difference in principle between the cost accountant and the chartered accountant, but rather in degree, the work of the latter being wider in scope and along more general lines. Both are, nevertheless, artists employing the principles of a science.

A Few Definitions

On these grounds, I make no apology for burdening you with a few brief definitions of the terms of the above title, which will assist in making clear and definite what exactly we are going to consider.

A relation is a connection established; cost, a price paid, or charge; accounting, a register or statement of transactions involving money, or money's worth; business, an employment or occupation; and management, the conduct, directions or skilful treatment of affairs. We see that we have to deal with the connection established between the recording, in respect of the prices or charges involved, of

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transactions involving money or money's worth, on the one hand, and the conduct, direction and skilful treatment of business, employment, or occupation on the other. I am taking as granted without attempt at proof that such connection is and has long been established, an assumption to which, I think, all my hearers will readily agree, and it remains for us to consider only the nature and details of such connection and the best manner in which such knowledge may be applied in business organization and direction.

Such an enormous mass of literature has been published, good, bad and indifferent, on the subject of cost accounting and business management that a word of advice to enquirers may not be out of place here. Instead of attempting the almost impossible task of reading all that is written on the subject, it will be found better and more profitable to select a few well-written and authoritative works, and to really read and study them, to master them. Much, if not the greater part, of what passes by the name of reading is not reading, but skimming. The test I like to apply to myself as to whether or not I have read a book is to imagine to what degree of accuracy and comprehensiveness I could reproduce all the ideas, not the literal wording, of course, contained in such book, if for any reason every copy were destroyed. In brief, to what extent could I re-write the book? To that extent I may truthfully say to myself that I have read the work, and have assimilated what it contains. In preserving and maintaining physical health it is not enormous quantities of food which counts, but rather the perfect and beneficial assimilation of what is eaten. In like manner, mental growth and development does not consist in cluttering up the intellect with much reading, but in comprehending and making your own what you do read. There is such a condition as mental dyspepsia as well as physical dyspepsia.

Relation to General Accounts

And now, having burdened you with this introductory matter, let us get to grips with our subject proper, Cost Accounting. Many men of considerable business affairs appear to have very vague ideas as to Cost Accounting and as to its proper place, if any, in business economy. In the minds of many, Cost Accounting, if of any value at all, is something incidental to and confined to Factory operations. This idea, in common with most other erroneous or partially erroneous conceptions, has not arisen without some foundation, or apparent justification, derived from the facts of experience.

There is no doubt that the problem of Cost Accounting first obtained recognition as a problem in the Factory, which was probably the earliest form of business enterprise in which the question of investigation of detailed costs forced itself into prominence, and slowly but inevitably obtained for itself an important place in Factory Economy. Nevertheless, a very little reflection will show conclusively that the first Accountant who compiled what would now be regarded as a crude and elementary Profit and Loss Account was, so far as concerns the Debit side thereof (the Costs, or Expenses), the progenitor of the modern Cost Accountant. The difference is not one of principle, but of degree. True, his costs were very sadly lacking in detail and accuracy, but costs of a kind they undoubtedly were, and in their own way they served, however incompletely, or inefficiently, to indicate to the owner of the business some elements of interest and im-

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portance to the proprietor. The credit side, setting forth the Earnings, constituted something distinct from, and over and above, Costs or Expenses, and then was, and still is, a phase of Accounting outside the province of the cost accountant. It is not a fantastic notion, however, to conceive that the detailed analysis, or investigation, of credits or earnings, may be found, in the near future, to be a matter of equal interest and importance to cost accounting, and that an organized body of earnings accountants may yet come into existence.

It should be clear from the foregoing that the only essential difference between cost accounting, earnings accounting and general accounting, is in no sense one of principle but of degree. The real difference consists of the expressed or tacit recognition of scope, or the proper field of activity, in other words, a convenient and appropriate division of labour and skill in different fields of accounting. In this connection, and, as I wish to be combative and excite discussion, I have little hesitation in criticising, in the most friendly spirit, many of my brother chartered accountants, who, in the preparation of their accounts, do not appear to realize or recognize any necessity of framing accounts having due regard to the desirability and real usefulness to their clients of following in a reasonable and logical manner the physical operations involved in the business on which they are reporting, so as to bring out, however roughly or broadly, under appropriate divisions, the costs and expenses involved at various stages of the operations, such as, raw material, manufacturing labour, manufacturing overhead, trading or selling expenses, financial, administration and general overhead.

While it may not be in the province of the chartered accountant, critic, or auditor, to show such details in the form of unit costs, he should at least be thorough and logical within his own province, and show in reasonable detail under broad headings the elements of various departmental costs. Such work may then be supplemented and shown in more elaborate detail, as well as contrasted with the physical quantities produced, by the cost accountant, whose work can thus be checked and controlled by the general accounts. Cost accounting not thus controlled may be lacking in accuracy and dependability. The limitations of time do not permit my entering into further detail on this point, and I shall have to rely on what has been said to establish my contention that the work of the cost accountant and that of the general accountant differ only in scope and degree.

On these considerations, as a chartered accountant, and speaking for myself and not in any way on behalf of, or with the authority of, the Institute of Chartered Accountants of which I have the honour to be a member, I welcome the cost accountant as a brother operator in the field of accounting in general, and foresee for him a very useful place in the business community, in which I think we are, and can be, by no means negligible factors.

Its Practical Uses

We have now arrived at a general idea of what cost accounting is, and its relation to accounting in general. It is next pertinent to enquire to what uses it may be put and what beneficial ends it may be made to serve as seen through the eyes of those engaged in the management, direction and control of business enterprises.

THE RELATION OF COST ACCOUNTING

To a trader engaged in the comparatively simple business of purchasing at one price goods completely finished and ready for sale the question of cost presents no very serious or difficult problem, and modern methods of account-keeping can with comparative ease be employed, or some simple extension thereof, to keep him reasonably well informed along broad lines as to the elements of his cost, and within what limits he can meet competition in sale prices as the necessity may arise for so doing. This is true, however, only for a business carried on on a small scale and dealing in merchandise of a not greatly diverse character. As such a business tends to enlarge and become of increasing accuracy and detail emerges with growing insistence, and it is not too much to say that the lack of the exact knowledge of cost imperatively demanded in these days of keen competition is responsible for a large percentage of business failures, which otherwise might have been foreseen and avoided.

In the case of a manufacturing business with its much greater complexity the foregoing conclusions hold good, but with added emphasis. The manager of a manufacturing business who has to conduct it without a certain minimum of accurate information on its costs is in an analogous position to that of a mariner who has to make voyages through unknown waters without a chart, and the business without a cost accountant is like a ship without a navigator. Cost accounting is the chart which indicates the reefs, especially the submerged ones, which the vessel of commerce is liable to encounter on the sea of business, and when the chart is reliable and its indications heeded, a wreck will be avoided.

How Much Detail?

Of course, here, as in all other departments of human activity, common sense and well-balanced judgment must be brought into play. It is too obvious to require demonstration that the chief aim and object of all business is to convert some money into more money, and in such a process no wise man will spend ten dollars to obtain one dollar's worth of value in the shape of information or otherwise. In other words, the question of the cost of cost accounting is one which calls for the most careful consideration. Cost accounting, like any other expenses, must justify its existence by yielding beneficial results commensurate with the outlay it involves. Here is where discretion comes strongly into play, particularly on the part of the cost accountant, who will be well advised to avoid at the onset unnecessary elaboration, which too often involves a business, especially one in an intermediate state of development, in needless and prohibitive cost, and is apt to incite opposition and antagonism from the staff, resulting sometimes in the disruption and utter ineffectiveness of an otherwise beneficial innovation.

In this connection, the business calling for the most delicate handling is the one which has become too large to get along efficiently without some costing organization, but is hardly large enough to introduce efficient storekeeping and detailed wages and other expense analysis. It is well to face frankly the undoubted fact that proper storekeeping alone—an indispensable antecedent to anything worthy of the name of cost keeping—is necessarily and unavoidably quite an expensive item, demanding quite a lot of clerical work not formerly incurred, and many a good business man will need considerable per-

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suasian, and will require to be thoroughly "sold" on the idea that the benefits, direct or indirect, will at least balance the expense, before he will be induced to embark on what is often to him a very questionable experiment.

Therefore, be content with small beginnings, and to attain to the best practical results that circumstances permit, even if such results fall far short of the ideal. It is something—a really great thing—to have made a beginning, and, if the foundations are solidly laid, and permit of unlimited expansion without disturbance of principle, a natural process of growth and development will ensue, while, as the benefits and advantages of costs data, even if considerably short of the ideal, become more and more recognized, utilized and appreciated, the aforesaid doubter and sceptic will be converted into a real supporter.

Individual Applications

These remarks are, of necessity, of a sketchy and general nature, as it is evident that it would be futile and highly inappropriate in a short discourse, such as this, to attempt to go into detail, or to deal, however briefly, with the innumerable sub-problems of cost accounting as applied to individual businesses with almost infinite diversity of conditions. My object has been rather to call attention to broad principles of a fundamental or philosophic character, in the firm conviction that a thorough mastery of such will render easy the application thereof under any and all conditions, if employed with good judgment and with due regard to the prime essential of all good business, namely, that each party to a business transaction shall benefit thereby, each in his own way.

I see that I have already exceeded the time allotted to me, and hasten to conclude by referring briefly to the psychology of the relation between the cost accountant and the business executive. This, by the way, is of quite as much importance as mere knowledge and skill in accounting. It requires no special genius on the part of anyone to survey results after they have happened, and with an air of wisdom to point out the mistakes that may have been made. A person of very average intelligence can do as much. Real genius consists in the ability to see in advance all that is reasonably likely to occur, and to provide adequately and intelligently therefor. Therefore, if those directing a business think highly enough of our knowledge and skill to enlist our advice and assistance, that gives us no license to assume a superior and dictatorial attitude, and to look back contemptuously at any mistakes or lack of foresight which may be disclosed. Rather let us try to change places with those whom we may be tempted to criticize, to give due credit where wisdom and foresight have been exhibited and to remember that we ourselves, had the positions been reversed, might quite as justifiably, or it may be, as unjustifiably, be the subjects of adverse criticism. Be a friend and sympathetic helper and advisor, not an arrogant and superior, possibly an ignorant and destructive, critic.

I trust that these remarks, general and indefinite as they are, and are intended to be, will be found appropriate to be occasion, and may constitute a platform on which future discourses of a more concrete and less ideal nature may be heard.

I wish and prophecy for this newly-formed body in Vancouver a useful and successful life.

THE COST FACTOR IN OPERATING MOTOR TRUCKS

The Cost Factor in Operating Motor Trucks

By J. E. SWANCAR,
Ford Motor Company of Canada, Limited.

(From Industrial Canada.)

MOTOR truck transportation has become a recognized public necessity. The flexibility of this service has won, and is continuing to win, an ever-widening field. From the short urban haul, the motor truck has proved its usefulness and economy in long interurban activities. Railroads are using it to supplant express and freight service by train. New uses are constantly being devised.

The mechanically-powered truck has, in short, virtually eliminated its erstwhile competitor, the horse, in urban use and is gaining steadily in the areas outside the cities. Cost figures have proved that it can compete successfully with the horse in almost every type of work. Even the hold of the horse upon the city milk route, with its many stops and 100-foot moves, is disputed.

But the fleet owner must utilize the truck scientifically in order to make it profitable. Science, after all, has nothing mysterious about it. It is merely classified knowledge.

If knowledge concerning the motor truck is classified and applied, the fleet operator's certainty of success is assured. And in this grouping of information, perhaps the most important bracket is that dealing with costs.

Costs must be known in all business activities, if success is to be assured. The only way to know costs is to keep records. These records in themselves are not the cure for operating ills, but are merely the instruments that reveal the facts.

An Illustration of Losing Money

An instance in which a fleet operator was losing money unwittingly was brought out forcefully at a recent gathering of newspaper circulation managers. One man, credited with being the chief factor in impressive gains in distribution for his publication, said that cost statistics had indicated that trucks could not be operated for less than eleven cents a mile, if drivers' wages, garage charges, depreciation and all other factors were taken into account.

Nevertheless, a man with a fleet of trucks offered to distribute papers for seven cents a mile. The offer was accepted with alacrity.

"I know that man is losing money," the circulation manager said. "He is using the same type of truck we used, and the check we made was most elaborate. Of course, he may be practising economies we overlooked. He may have found new ways of cutting costs. But I think not. Probably he is failing to take account of some important charges. We have been candid with him, but he is convinced that he is making money. In the circumstances we feel justified in waiting until he wakes up before making a different sort of agreement with him."

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It is impossible to set down operating costs that will hold good for all time, in every locality, and for every operating condition. Obviously, costs will differ even with identical trucks, hauling similar loads and covering the same distance, with different road or traffic conditions and with different climatic conditions. And so, also, do costs of gasoline and oil, pay of drivers and garage charges, differ.

But it is possible to bring out those factors that should be considered in costs. Local current rates and prices can then be considered.

Operating costs may be divided into three headings—Investment Costs, Fixed Costs and Variable Costs. These may be subdivided again thus:

Investment	Fixed	Variable
Chassis	Interest	Fuel
Body and Cab	Insurance	Lubricants
Freight	License	Maintenance
Taxes	Drivers' Wages	Tires
Special Equipment	Garage Rent	
	Depreciation	

Despite this segregation for purposes of comparison, the items listed under these three headings are closely related and frequently one or more must be available before a third in another column can be determined. For instance, in order to discover the amount to be set up for depreciation, all factors entering into the original cost of the truck should be considered under the heading "Investment." Interest is based on the total investment over a period equal to the life of the vehicle.

In computing depreciation, these factors are considered: The total cost less the tire value, and the life of the truck in miles. If the figures for the life of the truck are divided by those representing the yearly mileage, the result will be the number of years on which the interest is based. Tire cost is deducted in computing depreciation as it is included under the heading "Variable Costs."

Under fixed costs are included all items which go on whether the truck is in actual operation or not. Usually, these are reduced to a daily basis.

Liability, property damage, fire and theft should be considered in determining a proper insurance expenditure. No standard license fee has been established. The fee differs in all provinces and may vary with the rated capacity, horsepower and load carried.

Variable costs are those which are dependent directly upon the number of miles operated and which, obviously, cease to exist if the truck is not operated at all. They are all figured upon a mileage basis.

Then, having reduced the fixed costs to a daily basis, and a variable cost to a mileage basis, the daily average operating cost may be determined by multiplying the daily mileage by the total variable cost a mile, and by adding to this total the fixed cost a day.

The amount of overhead to be added depends on just what part the truck plays in conducting the business as a whole and this varies so that each individual case must be considered specially. For the purpose of economic comparison, the actual operating costs alone are

THE COST FACTOR IN OPERATING MOTOR TRUCKS

sufficient. There is an overhead cost and it must be applied in order to obtain a true cost. It is because of the failure of many truck operators to consider this point that very frequently a daily rate is quoted or charged up, which is actually less than the daily operating cost.

Operating Cost Laws

In considering the factors that enter into the cost of operating trucks we have developed what may be termed the "Laws of Motor Truck Transportation." These can be stated concisely as follows:

1. The "cost per day" will vary with the miles operated per day. This cost will increase as the daily mileage increases.
2. The "cost per mile" will vary with the miles operated per day. This cost will decrease as the daily mileage increases.
3. The daily "cost per unit" (gallon, bale, box or whatever unit is used) will vary with different capacities and the distance hauled. This cost will decrease with an increased truck capacity and will increase with an increase in daily mileage.
4. The "cost per unit mile" (per ton-mile, etc.) will vary with different capacities and the miles of truck haul per day. This cost will decrease with an increase in daily mileage.

It is important to note that these "laws" apply only when other conditions are equal, such as road and traffic conditions, efficiency of drivers, efficiency of mechanical operation, etc.

Operating Efficiency and Cost Records

Economical performance cannot be determined without complete records. Although truck cost accounting systems have been devised and are being used which are simple, cheap and easily available, and require only a few minutes a day for the necessary entries, their use to-day is very limited.

The business man who takes great pains to find out exactly what he is spending for production, labor, selling, advertising and overhead often disregards his transportation, hauling and delivery costs, although they play a large part in the total expense of doing business. In fact, in many businesses, they are the larger single element in the total cost.

Simple records often will indicate points where economies can be effected. A cost record will show mileage per gallon of gasoline and of oil, loads carried, loading and unloading time, number of stops, time out for repairs, speed and other factors. Careful analysis of these records will reveal the fact if too much gasoline and oil are being consumed; if the truck is under or overloaded; if too much time is being used for loading and unloading; if too many stops are being made; if the truck is laid up too often; and if it is not routed to obtain the maximum speed.

The basic data for supplying all this very valuable information can be obtained easily from the truck driver. Particularly is this so if a simple printed form is drawn up and supplied to him for this purpose, so that all he has to do is to insert a figure now and then. This form should be designed so that one small sheet will cover a day's operation.

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It should be ruled to include the leaving and returning time of each trip, the number of stops either for delivery or pick-up, time consumed in stopping, the out and in load in terms of load units (tons, gallons, barrels, sacks, packages, board feet, yards, etc.), as well as a total daily truck mileage, the amount of gasoline and oil used, and the total time the truck was in service. It is also valuable to know weather and road conditions, particulars of delays, whether a helper or trailer is used, etc.

The driver's reports should be posted daily on forms provided for that purpose. The posted forms will provide means for obtaining actual operating expenses for month or year as well as for a day. All of this will indicate whether the truck is operating efficiently and the cost of its operation.

Such records may tell, for instance, that too large a truck is being operated; that the body is not adapted to the commodity being handled or that there are too few trucks to do the work. They may disclose also that it will be cheaper to give up hired trucks and to place more of your own in operation, or that the business can be increased because of the extra distance the truck can operate after performing the work allotted to it.

The Driver's Co-operation

Perhaps no problem connected with the operation of trucks is more important and often baffling than getting the co-operation of the driver. Mechanical difficulties have been and are being surmounted, but the human element is more evasive.

No matter how expensive the truck nor how skilful the plans for its use, if the driver neglects either, investment and plans come to nothing. His position is unique. In most branches of business tasks may be delegated to subordinates without giving them the power of exercising their judgment in important matters. On the contrary, when a truck driver leaves the plant he is beyond supervision and is the guiding destiny of an investment which may vary from one to many thousands of dollars. His judgment, discretion and decisions are absolute.

A stretch of rough road may suddenly increase the strain on a truck to three or four times normal. If the driver overloads the vehicle or drives at excessive speeds, these strains may increase to ten or twenty times normal. Engineering cannot take care of such a wide range of strain. The discretion and judgment of the man at the wheel must, therefore, supply the deficiency.

Despite these obvious facts, little attention generally is paid to the selection and training of drivers. To this condition abnormally high maintenance and operation costs often may be traced. The best equipment obtainable and the best laid plans for its operation are nullified by incompetent or wilful misuse of equipment, resulting in abnormal operating costs which usually are attributed to the truck being poorly made and not standing up.

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Instances have been known where drivers have deliberately misused equipment to influence opinion against the make of truck operated in favor of another make or makes. One fleet-owning company overcame such a situation by a circular letter informing the men that no propaganda would result in a change and that any expense traceable to neglect or abuse would be deducted from the driver's pay.

In some cases it has been found profitable to make the driver responsible for keeping the truck in shape as well as driving it. He then appreciates the importance of careful driving, attention to lubrication and other details when on the road and also develops a pride in his machine, the smartness of its appearance and its performance.

THE TREND OF PRODUCTION COSTS

THE trend towards lower costs of production continues, being featured chiefly by reduced costs of materials. The Dominion Bureau of Statistics index number of 502 commodities, based on 1926, decreased from 82.5 at the end of September to 81.4 at the end of October. The main groups compare as follows:

	Oct. 1929	Sept. 1930	Oct. 1930
Foods, beverages and tobacco.....	103.7	87.5	89.0
Other consumers' goods.....	90.1	85.7	85.4
Consumers' goods, all.....	95.5	86.4	86.8
Building and construction materials.....	98.5	86.8	85.6
Manufacturers' materials.....	97.1	72.6	70.1
Producers' materials, all.....	97.4	75.2	72.9
Producers' equipment.....	94.3	91.3	91.3
Producers' goods, all.....	97.1	76.8	74.7
Commodities, all.....	96.8	82.5	81.4

The more important decreases in October were in the following: Grains, flour and milled products, bakery products, miscellaneous vegetable products, hides and skins, cotton yarn and thread, sash cord, flax, hemp and jute products, raw silk, silk thread and yarns, brass, copper and products, lead and its products, zinc and its products.

Some important advances took place in the following in October: Fishery products, milk and its products, eggs, and salt.

The labor supply continues plentiful in relation to demand, and though standard wage scales are very little affected, the tendency is to obtain better results.

In October there were ten strikes and lockouts in Canada. Two of these had been carried over from September, while eight commenced in October. Eight were terminated, two of them being in favor of the workers, four in favor of employers, and two are described as compromises. Two disputes remained in force at the end of the months, one being with hosiery factory workers in Guelph and in Mount Dennis, Ont., and one being with ornamental iron workers at Vancouver.

Credit conditions are favorable, and short-term loans on good security can be obtained on as low terms as are ordinarily available in Canada. For long term borrowing, only the highest grade bonds meet a favorable reception.

COST LITERATURE

RECEIVED IN NOVEMBER

INDUSTRIAL Lessons from the Building of Solomon's Temple. A. H. Rodrick. Society of Industrial Engineers, October, 1930.

Making Net Profits During a Period of Depression. F. C. Everitt. Society of Industrial Engineers, October, 1930.

Administration of Standards and Their Flow Through the Various Accounts. G. Robinson. National Association of Cost Accountants, November 15, 1930.

Bank Cost Accounting. W. Widmayer. National Association of Cost Accountants, November 15, 1930.

Marconi's Stock Control. D. MacInnes. Canadian Office, November, 1930.

Factors in Comparing Costs. T. H. Hargrave. Accountants' Magazine, November, 1930.

Scientific Cost Accountancy. R. Dunkerley. The Accountant, November, 1930.

How Selling Costs May Be Allocated to Lines or Products. American Accountant, November, 1930.

Two Principal Requirements for Operation of Budget Described. American Accountant, November, 1930.

Method of Handling Depreciation by Electric Street Railway Companies. C. C. Hetzler. Certified Public Accountant, November, 1930.

Farm Accounts. Accountants' Journal, October 20, 1930.

Cost Accounts. W. Annan, C.A., F.C.W.A., M.A. Accountants' Journal, November, 1930.

Accountant as a Profit Increaser as Well as a Profit Stater. J. P. Jordan. Journal of Accountancy, November, 1930.

Accounting Practice in England and America. H. R. Caffyn. Journal of Accountancy, November, 1930.

Value to Industry of Association Work in Cost Accounting. T. W. Howard. National Association of Cost Accountants, November 1, 1930.

Uniform Cost Accounting in the Retail Lumber Business. D. D. Battelle. National Association of Cost Accountants, November 1, 1930.

Some Economic Fallacies Common Among Cost Accountants. L. E. Campbell, C.P.A. National Association of Cost Accountants, November 1, 1930.

Why Cost Accounting is Vital to Effective Management. R. Dunkerley. The Cost Accountant, October, 1930.

Depreciation and Other Charges. The Cost Accountant, October, 1930.

SOCIETY'S CALENDAR, 1930-31
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CHAPTER MEETINGS (Total 57)

- 1930
- Sept. 22—Winnipeg. "Inventory Control," by H. Latter, Winnipeg.
- Oct. 1—Toronto. (Joint meeting of Toronto, Hamilton and Central Ontario Chapters.) "Industrial Engineer," by H. F. Wilson, Kitchener. "Production Problems," by R. W. Doering, Hamilton. "The Cost Department," by R. E. Love, Hamilton.
- Oct. 10—Montreal. (Opening Dinner.) "A Premier's View of Accounting," by Hon. L. A. Taschereau, Premier, Province of Quebec.
- Oct. 14—Vancouver. (First meeting of new Chapter.) "The Relation of Cost Accounting to Business Management," by R. B. W. Pirie, C.A., Vancouver.
- Oct. 15—Toronto. "Inventory Control and Production Scheduling," by B. W. Lang and Associates, Toronto.
- Oct. 20—Winnipeg. "Sales Book Production Costs," by G. S. N. Gostling, Winnipeg.
- Oct. 23—Montreal. "Difficulties Arising in the Installation of Cost Systems," by L. N. Buzzell, B.Com., C.A., Montreal.
- Oct. 29—Hamilton. (Joint meeting of Toronto, Hamilton and Central Ontario Chapters.) "Standard Costs," by E. A. Camman, New York, U.S.A.
- Nov. 4—Vancouver. "Comparative Cost Data in Copper Mining and Smelting." A. S. Baillie, Granby Consolidated Mining & Smelting Co. Ltd.
- Nov. 5—Hamilton. "Welfare of Personnel in Industry," by R. W. Doering, Hamilton.
- Nov. 6—Montreal. "The Advantages of Cost Accounting and Industrial Engineering to the Manufacturer," by Prof. R. R. Thompson, C.A., L. N. Buzzell, B.Com., C.A., and Paul Dufresne.
- Nov. 12—Toronto. "Adjusting the Burden to Meet Varying Conditions," by Ralph E. Case.
- Nov. 17—Winnipeg. "Budgetary Control." General discussion led by G. S. Curry and L. Thompson, Winnipeg.
- Nov. 20—Central Ontario (in Guelph.) "Net Profits—The Ultimate Objective," by S. E. LeBrocq, President of the Society. "Budget Control—How to Get Started," by G. E. F. Smith, C.A.
- Nov. 20—Montreal. "The Scope of Industrial Engineering in Industry," by Harry F. Wilson, Kitchener. "The Beauharnois Development," by Rielle Thomson, Advertising Manager, Beauharnois Power Corporation.
- Nov. 26—Toronto. "Net Profits—The Ultimate Objective," by S. E. LeBrocq, President of the Society.
- Dec. 3—Hamilton. "Wage Incentives," by R. K. Williams, The Sherman Corporation, Canada, Ltd.
- Dec. 4—Montreal. "Costs and Distribution of Overhead in a Departmental Store," by A. E. Walford, C.A., L.I.A., Secretary-Treasurer, Jas. A. Ogilvy's, Ltd.
- Dec. 9—Vancouver. "Department Store Merchandise Turnover and Inventory Control." F. A. Wilson, Hudson's Bay Co.

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- Dec. 10—Toronto. "Practical Application of Cost Data to Production Management."
- Dec. 11—Central Ontario (in Kitchener). "Inventory Control." General discussion.
- Dec. 15—Winnipeg. "Inventory Control in the Motor Industry," by G. R. Beedie, General Motors Products of Canada.
- Dec. 17—Hamilton. "Inventory Control," by H. S. Jensen, Proctor & Gamble Co. of Canada, Ltd.
- 1931
- Jan. 7—Toronto. "Time Study Standards."
- Jan. 13—Vancouver.
- Jan. 14—Hamilton. "Industrial Engineering and its Relation to Standard Costs," by J. E. Goudey, Canadian Cottons, Ltd.
- Jan. 15—Central Ontario (in Kitchener). "Labor in Relation to Cost of Manufacture," by J. W. Spence, Canadian Kodak Co., Ltd., Toronto.
- Jan. 19—Winnipeg. "Some Aspects of Hydro Electric Operations," by F. J. Malby, City of Winnipeg Hydro-Electric Ltd.
- Jan. 21—Toronto. "Selling and Distribution Costs."
- Jan. 22—Montreal. "Canada and Its Railways," by Lieut.-Col. Thomas Vien, K.C., B.A., Deputy Chief Commissioner, Board of Railway Commissioners, Ottawa.
- Feb. 4—Toronto. "Standard Costs."
- Feb. 5—Montreal. "Costs Relating to Agricultural Products," by C. D. McCaig, Northern Electric Co., Ltd. "The Production of the Modern Newspaper," by J. S. Miller, A.C.I.S., Secretary-Treasurer, Gazette Printing Co., Ltd.
- Feb. 10—Vancouver.
- Feb. 12—Central Ontario (in Kitchener). "Standard Costs," by R. E. Love, Hamilton.
- Feb. 16—Winnipeg. "Foundry Castings and Their Cost," by F. J. Manning, Manitoba Steel Foundries, Ltd.
- Feb. 18—Toronto. "Cost Studies on Proposed Changes in Processes."
- Feb. 19—Montreal. "Inventory Control," by A. A. Swayne, Montreal.
- Feb. 25—Hamilton. To be announced later. Prof. Gilbert Jackson, University of Toronto.
- Mar. 4—Toronto. "Interesting Factory Staff in Costs."
- Mar. 5—Montreal. "Net Profits—the Ultimate Objective," by S. E. LeBrocq, President of the Society.
- Mar. 10—Vancouver.
- Mar. 11—Hamilton. "Sales Statistics," by L. E. Hubbard, International Business Machines Co., Ltd.
- Mar. 12—Central Ontario (in Galt). Annual meeting. "Losses and Intangibles in Costs," by T. S. Jardine, United Drug Co. of Canada, Ltd., Toronto.
- Mar. 16—Winnipeg. Annual meeting. "Practical Application of Cost Data in Production Management." General discussion, led by E. J. Burleigh, Winnipeg.
- Mar. 18—Toronto. Annual meeting. "Development of Line Production."

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- Mar. 19—Montreal. Annual meeting. "Road Construction and Maintenance Cost Data," by A. Fraser, Chief Engineer, Roads Department, Quebec.
- Mar. 25—Hamilton. Annual meeting. Members' Problems. Answered by H. M. Ross and A. J. Mouncey.
- Apr. 1—Toronto. "Handling Material or Product by Mechanical Methods."
- Apr. 9—Montreal. Annual dinner. Speaker and details to be announced later.
- Apr. 9—Central Ontario (in Kitchener). Annual dinner. "Workmen's Compensation as an Item in Costs," by T. N. Dean, M.A., Workmen's Compensation Board of Ontario.
- Apr. 10—Hamilton. Annual dinner. "Budgetary Control," by E. S. La Rose, Bausch & Lomb Optical Co., Rochester, U.S.A.
- Apr. 14—Vancouver.
- Apr. 15—Toronto. "Wage Incentives."
- Apr. 20—Winnipeg. "Accounting in Relation to Fire Loss Adjustments," by S. F. Cross, Brewster, Cross, McLaws & Sterling.
- Apr. 29—Toronto. Annual dinner. Speakers and details to be announced later.
- May 18—Winnipeg. Annual dinner. Subject and speakers to be announced later.

NEW MEMBERS

The following are new members of the Society:

Toronto Chapter

Hough, W. M., Willys-Overland Ltd., Toronto.

Montreal Chapter

Beauvais, J. E., The Robert Mitchell Co., Ltd., Montreal.
Boivin, P. H., The Granby Elastic Web Ltd., Granby, Quebec.
Brodie, J. B., Canadian Car & Foundry Co., Ltd., Montreal.
Buchanan, M. T., Canadian Car & Foundry Co., Ltd., Montreal.
Burdon, J. A., Canadian Steel Foundries, Ltd., Montreal.
Madge, A. V., Crawley & McCracken Co., Ltd., Montreal.
Magnan, H., Clermont Motors Ltd., Montreal.
Riopel, A., Legare Auto & Supply Co., Ltd., Montreal.
Wilson, F. G., Consolidated Oka, Sand and Gravel Co., Ltd., Montreal.

Hamilton Chapter

*Astle, W., Firestone Tire & Rubber Co., Ltd., Hamilton.

Central Ontario Chapter

*Baird, J. C., Babcock-Wilcox & Goldie-McCulloch, Ltd., Galt.
*Hetherington, J. F., Babcock-Wilcox & Goldie-McCulloch, Ltd., Galt.
*Murray, R. D., Babcock-Wilcox & Goldie-McCulloch, Ltd., Galt.

Vancouver Chapter

Larson, F. T., Granby Consolidated Mining & Smelting Co., Ltd., Anyox, B.C.
Terry, N., Canadian Sumner Iron Works, Ltd., Vancouver, B.C.

*Junior membership.

CHAPTER NOTES

MONTREAL

H. W. Blunt, Secretary.

On Thursday evening, October Twenty-third, over ninety members and friends had the privilege of hearing one of the finest addresses ever delivered before a meeting of Montreal Chapter. The subject was a topic that should strike a responsive chord in the heart of every Cost Accountant, for who has not experienced at one time or another some of the "Difficulties Arising in the Installation of Cost Systems." The speaker, Mr. L. N. Buzzell, B.Com., C.A., showed a keen appreciation of the trials and tribulations of the Cost Accountant, while demonstrating at the same time a remarkable ability to overcome such difficulties through his comprehensive knowledge of the theory and practice of the science of Cost Accounting.

Let us suppose that you have been engaged to install a Cost System for a company which is losing money steadily, but through lack of proper and adequate information has been unable to detect where the weakness lies. You would certainly be well advised to confer with Mr. Buzzell before entering on this engagement, but should this be impossible, you may still obtain the benefit of his advice.

His address, which will appear in "Cost and Management," describes in detail the procedure to be followed in just such a case as the above. For everyone interested in the installation of Cost Systems this address should prove of inestimable value as a source of reference.

A brief outline of his mode of procedure might read as follows: Decide on the type of Cost System to be installed. (Let us suppose it to be the Standard Cost System.) Examine the existing Cost System and determine to what extent it should be modified or replaced. Analyze the Expense Accounts, and decide which are necessary and which are not, and what additional expenses might be incurred to the benefit of the business. Prepare a complete and detailed survey of the Sales Department and Plant, in order to ascertain the correct Standard Costs to be introduced. Then with every detail of the proposed system complete, sell your plan to the management, and obtain the necessary co-operation from the staff for its installation.

But Mr. Buzzell does not leave you here, for he continues by discussing the specific difficulties of treating Raw Material, Direct Labour and Factory Overhead once the Cost System is installed, and shows how these may be overcome. He then briefly summarizes the advantages of a Cost System and a Budget System, and the merits of the two systems interlocked, and operating as one. His address concludes with this significant statement: "I believe that if Cost Accounting and Budget systems were generally introduced into business, at least 50% of the failures, apart from dishonest failures, could be avoided."

CHAPTER NOTES

An interesting discussion led by Mr. George Nicol, Secretary-Treasurer of Amalgamated Electric Corporation, on the "Advantages of a Cost Accounting System Interlocked and Operating in Conjunction with a Budget System" preceded the address. This discussion was followed by another, equally as interesting, on "Wage Systems," led by Prof. R. R. Thompson. Among the members taking part in both discussions were noticed: L. Belanger, D. R. Patton, P. E. Dufresne and E. V. Madge.

Montreal Chapter's energetic Chairman, Mr. George Bowden, presided at the meeting, supported by a worthy representation of directors. Mr. J. P. Masterson, Vice-Chairman, moved the vote of thanks to the speaker, which was heartily endorsed by all present.

TORONTO

E. W. Carpenter, Secretary.

J. A. Waterbury, of the firm of Stevenson, Harrison & Jordan, management engineers, represented Ralph E. Case, Esq., author of the paper on "Adjusting Burden Rates to Varying Conditions," who was unable to attend, at a regular dinner meeting of Toronto Chapter at the Carls-Rite Hotel, on Wednesday, November 12th.

The members and guests present were treated to a new phase of this very interesting and important subject. Following a brief introduction of Mr. Waterbury by Mr. R. Oaten, chairman, Mr. Waterbury expressed his pleasure in being afforded the opportunity of joining the Toronto Chapter in their discussion of accounting and industrial problems. Mr. Waterbury outlined five important qualifications of an organization expecting to take its place in modern industry:

1. Able leadership.
2. Sound organization.
3. Sane systems and vital records.
4. Budgetary control and establishing of standards.
5. Compensation—Reward for performances better than standard.

An example of an analysis of departmental expense accompanied the paper and proved to provide valuable information. One of its outstanding contributions was that of supplying an analysis of expense variances according to those controllable by department foremen and those due to volume performance, above or below standard, for which management or general conditions, rather than foremen, were responsible.

This analysis of departmental expense enables a comparison of expenses not only according to budget, but also with expenses as they should have been, based on budgeted expense in relation to actual production. Mr. Waterbury also explained the process of comparing the actual expenses with what he terms standard shop allowance which is based on standard expenses for varying volume of production.

Mr. Waterbury then explained how a foreman's incentive plan is operated on a fair basis, when departmental expense is separated as between controllable variances and volume variances. The departmental expense analysis included with the paper published in this

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magazine will show how, in the example given, in spite of reducing volume, the foreman was able to reduce controllable expense to the point where he qualified for a bonus, even although the total overhead, including fixed overhead, was higher than budget, when applied to budget volume. This plan seems to provide means for rewarding individuals or groups in so far as they contribute towards savings in their department on controllable expense.

For reasons unknown our attendance was not up to that of previous meetings; however, your executives feel it was only a temporary lapse and a larger turnout will result in the future.

Surely with the interest developing in standard cost procedure there must be many queries the members would like to forward. Your committee on member's problems is ready for service.

Along the line of some of the points discussed at recent meetings of our Chapter, members are reminded that there is considerable literature in the Society's office in Toronto, and the following are a few suggestions for reading:

Standard Costs. D. M. Farish. Cost and Management.

Materials in Standard Costs. W. L. Churchill, N.A.C.A. Bulletin.

Some Important Points in Burden Distribution. A. E. Grover, N.A.C.A. Bulletin.

Depreciation Element in Burden Estimates. J. B. Canning, N.A.C.A. Bulletin.

Modern Trends in Treatment of Burden. W. Baum. N.A.C.A. Bulletin.

Setting Burden Rates in Accordance with What Traffic Will Bear. H. A. Bullis. American Accountant.

The following text-books include some discussion of burden in relation to varying volume of production: Industrial Accounting, T. H. Sanders. Cost Accounting, Nicholson and Rohrbach. Cost Accounting Theory and Practice, J. L. Dohr. Cost Accounting Principles and Practice, Jordan and Harris. Cost Accounting, W. Ainsworth. Theory and Practice of Costing, E. W. Newman.

CENTRAL ONTARIO

C. J. Heimrich, L.A., Secretary-Treasurer.

The November meeting of our Chapter, held on November 20th in Guelph, was the first of our "Home" meetings this season, we having joined with Toronto and Hamilton for our first two meetings. On this occasion our genial hosts were the president of the Guelph Carpet and Worsted Spinning Mills Co. Ltd., Mr. Quarmby, and our own two members, Mr. Earnshaw and Mr. Griggs, C.A., the other two gentlemen named, however, giving Mr. Earnshaw credit for carrying out the arrangements. In his customary manner, Mr. Earnshaw provided for our pleasure and entertainment with the thoroughness that is characteristic of him and with a regard to minute details that left nothing to be desired.

Our guest speakers were Mr. S. E. Lebrocq, comptroller, Steel Co. of Canada, and president of our Society, and Mr. G. E. F. Smith, C.A., of Richardson, Smith, Ferrie & Co., of Hamilton, chairman of the Hamilton Chapter.

CHAPTER NOTES

The opening salvo was a visit to the plant of the Guelph Carpet and Worst Spinning Mills Co. Ltd., through the courtesy of Mr. Quarmby, which unfortunately was rather poorly attended, due no doubt to the fact that the majority of our members were present at a similar visit last year.

The real campaign was staged in the quarters of the Guelph Garrison Club in the Armouries at 6.30 p.m. With due regard to the importance of an army being unable to campaign efficiently on an empty stomach, Mr. Earnshaw had sent out his foraging forces and obtained rations for the hungry warriors, which were disposed of with gusto and heartily enjoyed by all.

The heavy artillery got into action after the dinner when Mr. Smith gave us an address on "Budget Control—How to Get Started," prefacing this with one of his characteristically humorous and satirical discourses in which the wit and satire followed each other so rapidly that the secretary was unable to make notes, but all who heard it will remember this paper.

In his address on Budget Control, Mr. Smith presented something that was entirely new to the most of us, and the interest with which this was received was evidenced by the discussion which followed later in the evening. Mr. Smith was subjected to numerous questions and not all agreed with his replies, but there was no doubt about everyone being deeply interested in the subject as it was presented.

"Net Profits—The Ultimate Objective" was the subject chosen by Mr. Lebrocq. This very timely question was most ably dealt with and was received with a great deal of interest, and there was general disappointment when the speaker concluded rather suddenly. It is our impression that we heard only a small part of this address and our hope is that we may be able to prevail upon Mr. Lebrocq to give all of it to us at some future date.

Discussion was withheld until both speakers were finished, when the barrage opened and the crackle of cross-fire questions was heard on all sides, which was maintained until the cease fire was given by Commander Tailby.

VANCOUVER

R. V. Kirkby, Secretary-Treasurer.

At the last meeting of the Vancouver Chapter, held November 4th, those present were privileged to listen to a most interesting and graphically portrayed account of the compilation and use of comparative cost data in the copper mining and smelting industry, delivered by Mr. A. S. Baillie of the Granby Consolidated Mining and Smelting Co. Ltd.

The speaker of the next meeting, to be held on December 9th, will be Mr. F. A. Wilson of the Hudson's Bay Co., who will base his address on the subject, "Department Store Merchandise Turnover and Inventory Control."

The organization work is proceeding very favorably, the Chapter now being well established as one of the more recent entries into the circle of Vancouver's business men's associations.

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